

December 2, 1947.

P / Dear Ed-

Finally, after too many months, I've gotten off the manuscript of "Problems in Microbial Genetics" and sent it to Darlington. It has not been changed substantially from your last reading of it, except in an editorial way to try to make my brand of the American language intelligible. The copy enclosed is the MSS. sent to Heredity, except for further proofing for errors and a few more untwistings of phraseology. Perhaps I'm too close to it now, but I don't think very much of it and am merely relieved that it is out of the way. It might have been better simply to analyse the one problem of the design of mutagenesis experiments in detail and let the rest go, but there may be some value to the rest of it. At any rate it had reached the point of rapidly diminishing returns as far as putting any more work into it was concerned.

Brink, quite rightly I think, regards this paper as a contribution from the OBL, Yale, and for that reason the UW address is explicitly given as simply my present address. This department then will not be able to pay for any reprints if and when ~~any~~ the paper is finally published. Will there be anything left in the Childs Fund for such a purpose? Unfortunately being as long as it is, and in an English journal it may be fairly expensive in American dollars, but I can't give any estimate of the cost. I think it is the sort of paper that should be on the departmental mailing list. The problem is raised now so that when the estimate of costs do come through you will have had the facts in advance and may be able to come to a more prompt decision at that later time.

Brink, and by implication the administration, is beginning to talk about the advisability of "outside" support for the program here. This is somewhat at odds with the impression I was given when I first came here, but the Univ. has come through with a substantial budget for getting the program under way, and with the continuous advance in prices, the costs ~~are~~ are simply approaching the extent of their commitments in their own minds. Unfortunately, the State laws very peculiarly prohibit active solicitation of funds by any of its employees, which makes looking for such support somewhat awkward. It means merely that in looking for such aid, I can describe the situation and my project and perhaps the fact that grants are needed for its support, but can only imply by indirection that I would be anxious to have them. I wrote to Dr. Meader in this vein a few days ago; I assume that the Childs Fund understands that problem, in view of their current support of the work that Potter is doing. In contrast to operating expenses, support for graduate personnel, via the WARF seems to be freely available. It will be a long time before I can do anything with such, considering I would need a lab. first.

If you should have any suggestions of possible sources of research moneys, and you are taken care of yourself, I would appreciate hearing ~~them~~, I would be particularly interested in the possibility of long-term (3-5 yr) arrangements.

No great scientific advances since my last letter. The b-phenyl galactoside is more complicated than I thought at first all combinations of + and - with the lactose character occurring by mutation. The question of multiple allelism vs. several factors is still open.

I am starting to work on the Cl-C2 strains. Firstly, it seems that  $10^9$  cells of Y142, supposedly requiring both arginine and isoleucine + valine, form about 40 colonies on minimal agar, and considerably more on agar containing arginine, isoleucine + valine. On arginine alone, the medium was simply turbid. Do you have any information on optimal proportions of ~~xxx~~ IL:V for this strain? Y138 seems to be much more satisfactory, and the leucine requirement is apparently very stable. I am going to retest all the requirements pdq, and I'll let you know. Meanwhile, if you have any quantitative response data on the strains, I'd like to see it.

If you should receive W-53 in the near future, this is simply a b~~o~~gal - variant of 58-161 which seems to be b~~o~~gal +, or at least relatively so. I am running into quantitative variation, I'm afraid.